

Application Number 10/608379
Reply to Action dated 4/30/2007

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REMARKS

Reconsideration and reexamination of the application are requested. Editorial changes are made to the specification. Applicants also amend claims 1 and 2, and in doing so have not added new matter. Support in the originally filed specification for the engine of the vehicle being stopped and the switch being turned on, as set forth in claim 1, and for new claim 3 is given on at [¶0058], page 11, lines 13-14. Support for the amendment to claim 2 is given at [¶0046], page 9, lines 7-9. Claims 1-3 are pending.

The Examiner rejected claims 1 and 2 under 35 USC §103(a) as being obvious on consideration of U.S. Patent 6,320,497 B1 to Fukumoto et al. (Fukumoto '497) in view of U.S. Patent 6,577,934 B2 to Matsunaga et al. (Matsunaga '934). Applicants traverse on the basis that the combination of Fukumoto '497 and Matsunaga '934 does not teach all the claimed elements.

Fukumoto '497 provides a self-diagnosis mode for a utility vehicle that checks faults of the various sensors while the engine is running and the operator is operating the vehicle. The diagnostic information provided by the sensors in Fukumoto '497 is intended to alert the operator to abnormal operation conditions to enable the operator to take appropriate action, *see* Fukumoto '497 at column 13, line 15 through column 14, line 33. Applicants are aware that when fault diagnosis is performed on an engine control system while the engine is running, as in Fukumoto '497, the fault diagnosis operation interrupts the ordinary control operations of the engine, thus interfering with the smooth operation of the engine and causing unexpected results in the vehicle. Fukumoto '497 does not teach or suggest that a vehicle meter unit for receiving fault diagnostic information when an engine of the vehicle is stopped and an ignition switch is on, as required by claim 1. The rejection admits that Fukumoto '497 does not teach a CAN controller.

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Matsunaga '934 also teaches that the electronic controllers connected by bus to the CAN controller carries out a failure diagnosis **while traveling**, *see* Matsunaga '934 at column 5, line 52; **during operating conditions**, *see* column 6, line 15; and **when the driver starts the engine of the vehicle**, *see* column 11, line 24. Matsunaga '934 thus, like Fukumoto 497, does not teach or suggest the limitation of claim 1, namely that when the engine of the vehicle is stopped and an ignition switch is turned on, transmitting a signal via the CAN controller to perform fault diagnosis of several system.

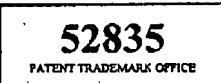
Matsunaga '934 does teach a CAN controller but does not teach or suggest that each system has a respective CAN controller. Matsunaga '934 connects the various sensors with buses connected to a CAN controller to monitor conditions in an automobile. A signal of an abnormal condition is transmitted via the bus to a CAN controller and because of the connection provided by the buses, there is no need to have CAN controllers within each respective system of Matsunaga '934. In fact, Matsunaga '934 does not recognize the problem solved by Applicants, namely that CAN controllers in each respective system eliminate the need for multiple buses and an expensive wiring harness, and reduces wiring costs. *See* Applicants' specification at page 9, ¶[0046].

The combination of Matsunaga '934 with Fukumoto '497 does not teach or suggest the required claim element of a control unit to transmit via a CAN controller a command to perform fault diagnosis when an engine of the vehicle is stopped and an ignition switch is turned one, as required by claim 1. Neither reference, moreover, teaches or suggests that the CAN controller of the control unit is linked to the CAN controllers of each system by radio in the vehicle, as required by claim 2. Matsunaga '934 connects all the sensors with buses so there is no need to have a CAN controller with each respective sensor. With respect to claim 2, Matsunaga '934 explicitly teaches that the unit that transmits radio signals is not within the vehicle meter unit, and that the control unit that commands the CAN controller to perform fault diagnosis of the system is connected via buses. Applicants request the Examiner to withdraw the rejection of claims 1 and 2 under 35 U.S.C. §103(a).

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In view of the above remarks, Applicants request reconsideration of the rejection as being obvious in view of Fukumoto '497 and Matsunaga '934. Early issuance of a notice of allowance is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.

Respectfully submitted,



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